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# SEQUENCE LISTING

<110> Ward, Elizabeth S.

<120> IMMUNOGLOBIN-LIKE DOMAINS WITH INCREASED HALF LIVES

<130> UTSD:483

<140> 08/811,463

<141> 1997-03-03

<150> 06/013,563

<151> 1996-03-18

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<170> PatentIn Ver. 2.0

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Peptides

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Peptides

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Peptides

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<212> PRT

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<400> 37

Val Pro Arg Asp Cys Gly Cys Lys Pro Cys Ile Cys Thr Val Pro Glu  
1 5 10 15

Val Ser Ser Val Phe Ile Phe Pro Pro Lys Pro Lys Asp Val Leu Thr  
20 25 30

Ile Thr Leu Thr Pro Lys Val Thr Cys Val Val Val Asp Ile Ser Lys  
35 40 45

Asp Asp Pro Glu Val Gln Phe Ser Trp Phe Val Asp Asp Val Glu Val  
50 55 60

His Thr Ala Gln Thr Gln Pro Arg Glu Glu Gln Phe Asn Ser Thr Phe  
65 70 75 80

Arg	Ser	Val	Ser	Glu	Leu	Pro	Ile	Met	His	Gln	Asp	Trp	Leu	Asn	Gly	85	90	95	
Lys	Glu	Phe	Lys	Cys	Arg	Val	Asn	Ser	Ala	Ala	Phe	Pro	Ala	Pro	Ile	100	105	110	
Glu	Lys	Thr	Ile	Ser	Lys	Thr	Lys	Gly	Arg	Pro	Lys	Ala	Pro	Gln	Val	115	120	125	
Tyr	Thr	Ile	Pro	Pro	Pro	Lys	Glu	Gln	Met	Ala	Lys	Asp	Lys	Val	Ser	130	135	140	
Leu	Thr	Cys	Met	Ile	Thr	Asp	Phe	Phe	Pro	Glu	Asp	Ile	Thr	Val	Glu	145	150	155	160
Trp	Gln	Trp	Asn	Gly	Gln	Pro	Ala	Glu	Asn	Tyr	Lys	Asn	Thr	Gln	Pro	165	170	175	
Ile	Met	Asn	Thr	Asn	Gly	Ser	Tyr	Phe	Val	Tyr	Ser	Lys	Leu	Asn	Val	180	185	190	
Gln	Lys	Ser	Asn	Trp	Glu	Ala	Gly	Asn	Thr	Phe	Thr	Cys	Ser	Val	Leu	195	200	205	
His	Glu	Gly	Leu	His	Asn	His	His	Thr	Glu	Lys	Ser	Leu	Ser	His	Ser	210	215	220	
Pro	Gly	Lys														225			



## HEAVY CONSTANT CHAINS CH2 REGION (cont'd)

EU INDEX	OU INDEX	81 IGG1 'CL'	82 IGG1 'MEMB'	83 MOPC 21	84 IF2 'CL'	85 ICR 11.19.3	86 IGG2B 'CL'	87 IGG2B 'CL'	88 IGG2B 'CL'	89 IGG2B 'MEMB'	90 MPC 11	91 10.1	92 IGG2A 'CL'	93 17/9 'CL'	94 IGG2A 'CL'	95 IGG2A 'CL'	96 IGG2A 'MEMB'	97 MOPC 173	98 CBPC 101	99 IGA 'CL'
243A																				
243B																				
243C																				
243D																				
243E																				
243F																				
243G	230																			
243H	231																			
243I	232																			
244	231	VAL		VAL	VAL		ALA	ALA	ALA				ALA	ALA	ALA	ALA	ALA	ALA	ALA	GLY
245	232	PRO		PRO	PRO		PRO	PRO	PRO				PRO	PRO	PRO	PRO	PRO	PRO	PRO	THR
245A																				
245B																				
245C																				
246	233						ASN	ASN	ASN				ASN	ASN	ASN	ASN	ASN	ASN	ASN	PRO
247	234						LEU	LEU	LEU				LEU	LEU	LEU	LEU	LEU	LEU	LEU	ILE
248	235						GLU	GLU	GLU				GLU	GLU	GLU	GLU	GLU	GLU	GLU	THR
249	236	GLU		GLU			GLY	GLY	GLY				GLY	GLY	GLY	GLY	GLY	GLY	GLY	ILE
250	237	VAL		VAL			GLY	GLY	GLY				GLY	GLY	GLY	GLY	GLY	GLY	GLY	PRO
251	238	SER		SER			PRO	PRO	PRO				PRO	PRO	PRO	PRO	PRO	PRO	PRO	SER
251A																				
251B																				
252	239	SER		SER			SER	SER	SER				SER	SER	SER	SER	SER	SER	SER	CYS
253	240	VAL		VAL			VAL	VAL	VAL				VAL	VAL	VAL	VAL	VAL	VAL	VAL	GLN
254	241	PHE		PHE			PHE	PHE	PHE				PHE	PHE	PHE	PHE	PHE	PHE	PHE	LEU
255	242	ILE		ILE			ILE	ILE	ILE				ILE	ILE	ILE	ILE	ILE	ILE	ILE	SER
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257	244	PRO		PRO			PRO	PRO	PRO				PRO	PRO	PRO	PRO	PRO	PRO	PRO	GLN
258	245	PRO		PRO			PRO	PRO	PRO				PRO	PRO	PRO	PRO	PRO	PRO	PRO	ARG
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260	247	PRO		PRO			ILE	ILE	ILE				ILE	ILE	ILE	ILE	ILE	ILE	ILE	ALA
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262	249	ASP		ASP			ASP	ASP	ASP				ASP	ASP	ASP	ASP	ASP	ASP	ASP	GLU
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266	253	ILE		ILE			ILE	ILE	ILE				ILE	ILE	ILE	ILE	ILE	ILE	ILE	LEU
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277	264	VAL		VAL			VAL	VAL	VAL				VAL	VAL	VAL	VAL	VAL	VAL	VAL	LEU
278	265	ASP		ASP			ASP	ASP	ASP				ASP	ASP	ASP	ASP	ASP	ASP	ASP	ASN
279	266	ILE		ILE			VAL	VAL	VAL				VAL	VAL	VAL	VAL	VAL	VAL	VAL	GLY
280	267	SER		SER			SER	SER	SER				SER	SER	SER	SER	SER	SER	SER	LEU
281	268	LYS		LYS			GLU	GLU	GLU				GLU	GLU	GLU	GLU	GLU	GLU	GLU	ASN
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284	271	PRO		PRO			PRO	PRO	PRO				PRO	PRO	PRO	PRO	PRO	PRO	PRO	GLY
285	272	GLU		GLU			ASP	ASP	ASP				ASP	ASP	ASP	ASP	ASP	ASP	ASP	ALA
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287	274	GLN		GLN			GLN	GLN	GLN				GLN	GLN	GLN	GLN	GLN	GLN	GLN	THR
288	275	PHE		PHE			ILE	ILE	ILE				ILE	ILE	ILE	ILE	ILE	ILE	ILE	THR
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291	278	PHE		PHE			PHE	PHE	PHE				PHE	PHE	PHE	PHE	PHE	PHE	PHE	THR
292	279	VAL		VAL			VAL	VAL	VAL				VAL	VAL	VAL	VAL	VAL	VAL	VAL	THR
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299	286	---		---			---	---	---				---	---	---	---	---	---	---	---
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301	288	GLU		GLU			GLU	GLU	GLU				GLU	GLU	GLU	GLU	GLU	GLU	GLU	LYS
302	289	VAL		VAL			VAL	VAL	VAL				VAL	VAL	VAL	VAL	VAL	VAL	VAL	ASP
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304	291	THR		THR			THR	THR	THR				THR	THR	THR	THR	THR	THR	THR	VAL
305	292	ALA		ALA			ALA	ALA	ALA				ALA	ALA	ALA	ALA	ALA	ALA	ALA	GLN
306	293	GLN		GLN			GLN	GLN	GLN				GLN	GLN	GLN	GLN	GLN	GLN	GLN	LYS
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313	300	VAL		VAL			VAL	VAL	VAL				VAL	VAL	VAL	VAL	VAL	VAL	VAL	GLY
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319	306	MET		MET			GLN	GLN	GLN				GLN	GLN	GLN	GLN	GLN	GLN	GLN	GLY
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322	309	THR		THR			THR	THR	THR				THR	THR	THR	THR	THR	THR	THR	THR
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324	311	ARG		ARG			ARG	ARG	ARG				ARG	ARG	ARG	ARG	ARG	ARG	ARG	ASN
325	312	GLU		GLU			GLU	GLU	GLU				GLU	GLU	GLU	GLU	GLU	GLU	GLU	THR
326	313	GLN		GLN			GLN	GLN	GLN				GLN	GLN	GLN	GLN	GLN	GLN	GLN	HIS
327	314	PHE		PHE			TRP	TRP	TRP				TRP	TRP	TRP	TRP	TRP	TRP	TRP	PRO
328	315	LEU		LEU			MET	MET	MET				MET	MET	MET	MET	MET	MET	MET	LEU
32																				

## HEA' INSTANT CHAINS CH3 REGION (cont'd)

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HUMAN	HUMAN	HUMAN	IGM	IGM	IGM-b	MUTANT	MOPC	HPC76	GB	GAT50	IGD	IGD	IGD	B1-8	MOUSE	IGG3	IGG3
IGA2	A2M(1)	A2M(2)	'CL	'CL	'CL	'CL	102	'CL	1.7	'CL	'CL	'CL	'CL	DELTA1	'CL	'CL	'CL
OU	OU	OU	OU	OU	OU	OU	OU	OU	OU	OU	OU	OU	OU	OU	OU	OU	OU
INDEX	INDEX	INDEX	INDEX	INDEX	INDEX	INDEX	INDEX	INDEX	INDEX	INDEX	INDEX	INDEX	INDEX	INDEX	INDEX	INDEX	INDEX
361	341	340	GLY	GLY	---	---	---	---	---	---	---	---	---	---	---	---	---
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363	343	342	THR	THR	SER	SER	SER	---	---	---	---	---	---	---	---	---	---
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367A	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
367B	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
368	347	346	GLU	GLU	LEU	LEU	LEU	---	---	---	---	---	---	---	---	---	---
369	348	347	VAL	VAL	THR	THR	THR	---	---	---	---	---	---	---	---	---	---
370	349	348	HIS	HIS	PHE	PHE	PHE	---	---	---	---	---	---	---	---	---	---
371	350	349	LEU	LEU	THR	THR	THR	---	---	---	---	---	---	---	---	---	---
372	351	350	LEU	LEU	ILE	ILE	ILE	---	---	---	---	---	---	---	---	---	---
373	352	351	PRO	PRO	PRO	PRO	PRO	---	---	---	---	---	---	---	---	---	---
374	353	352	PRO	PRO	PRO	PRO	PRO	---	---	---	---	---	---	---	---	---	---
375	354	353	PRO	PRO	SER	SER	SER	---	---	---	---	---	---	---	---	---	---
376	355	---	SER	SER	---	---	---	---	---	---	---	---	---	---	---	---	---
377	356	354	GLU	GLU	PHE	PHE	PHE	---	---	---	---	---	---	---	---	---	---
378	357	355	GLU	GLU	ALA	ALA	ALA	---	---	---	---	---	---	---	---	---	---
379	---	356	---	---	ASP	ASP	ASP	---	---	---	---	---	---	---	---	---	---
380	---	357	LEU	LEU	ILE	ILE	ILE	---	---	---	---	---	---	---	---	---	---
381	358	358	ALA	ALA	PHE	PHE	PHE	---	---	---	---	---	---	---	---	---	---
382	359	359	LEU	LEU	LEU	LEU	LEU	---	---	---	---	---	---	---	---	---	---
383	360	360	ASN	ASN	SER	SER	SER	---	---	---	---	---	---	---	---	---	---
384	361	361	GLU	GLU	LYS	LYS	LYS	---	---	---	---	---	---	---	---	---	---
385	362	362	LEU	LEU	SER	SER	SER	---	---	---	---	---	---	---	---	---	---
386	363	363	VAL	VAL	ALA	ALA	ALA	---	---	---	---	---	---	---	---	---	---
387	364	364	THR	THR	ASN	ASN	ASN	---	---	---	---	---	---	---	---	---	---
388	365	365	LEU	LEU	LEU	LEU	LEU	---	---	---	---	---	---	---	---	---	---
389	366	366	THR	THR	THR	THR	THR	---	---	---	---	---	---	---	---	---	---
390	367	367	CYS	CYS	CYS	CYS	CYS	---	---	---	---	---	---	---	---	---	---
391	368	368	LEU	LEU	LEU	LEU	LEU	---	---	---	---	---	---	---	---	---	---
392	369	369	ALA	ALA	VAL	VAL	VAL	---	---	---	---	---	---	---	---	---	---
393	370	370	ARG	ARG	SER	SER	SER	---	---	---	---	---	---	---	---	---	---
394	371	371	GLY	GLY	ASN	ASN	ASN	---	---	---	---	---	---	---	---	---	---
395	372	372	PHE	PHE	LEU	LEU	LEU	---	---	---	---	---	---	---	---	---	---
396	373	373	SER	SER	ALA	ALA	ALA	---	---	---	---	---	---	---	---	---	---
397	374	374	PRO	PRO	THR	THR	THR	---	---	---	---	---	---	---	---	---	---
398	375	375	LYS	LYS	TYR	TYR	TYR	---	---	---	---	---	---	---	---	---	---
399	376	376	ASP	ASP	GLU	GLU	GLU	---	---	---	---	---	---	---	---	---	---
400	377	---	VAL	VAL	---	---	---	---	---	---	---	---	---	---	---	---	---
401	378	377	LEU	LEU	THR	THR	THR	---	---	---	---	---	---	---	---	---	---
402	379	378	VAL	VAL	LEU	LEU	LEU	---	---	---	---	---	---	---	---	---	---
403	---	379	---	---	ASN	SER	ASN	---	---	---	---	---	---	---	---	---	---
404	---	380	---	---	ILE	ILE	ILE	---	---	---	---	---	---	---	---	---	---
405	380	381	ARG	ARG	SER	SER	SER	---	---	---	---	---	---	---	---	---	---
406	381	382	TRP	TRP	TRP	TRP	TRP	---	---	---	---	---	---	---	---	---	---
407	382	383	LEU	LEU	ALA	ALA	ALA	---	---	---	---	---	---	---	---	---	---
408	383	384	---	---	SER	SER	SER	---	---	---	---	---	---	---	---	---	---
409	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
410	384	385	GLN	GLN	---	---	---	---	---	---	---	---	---	---	---	---	---
411	385	386	GLY	GLY	GLN	GLN	GLN	---	---	---	---	---	---	---	---	---	---
412	---	---	SER	SER	SER	SER	SER	---	---	---	---	---	---	---	---	---	---
413	---	---	GLN	GLN	---	---	---	---	---	---	---	---	---	---	---	---	---
414	386	387	GLU	GLU	---	---	---	---	---	---	---	---	---	---	---	---	---
415	387	388	LEU	LEU	GLY	GLY	GLY	---	---	---	---	---	---	---	---	---	---
416	388	389	PRO	PRO	GLU	GLU	GLU	---	---	---	---	---	---	---	---	---	---
417	389	390	ARG	ARG	PRO	PRO	PRO	---	---	---	---	---	---	---	---	---	---
418	390	391	GLU	GLU	LEU	LEU	LEU	---	---	---	---	---	---	---	---	---	---
419	391	392	LYS	LYS	GLU	GLU	GLU	---	---	---	---	---	---	---	---	---	---
420	392	393	TYR	TYR	THR	THR	THR	---	---	---	---	---	---	---	---	---	---
421	393	394	LEU	LEU	LYS	LYS	LYS	---	---	---	---	---	---	---	---	---	---
422	394	395	THR	THR	ILE	ILE	ILE	---	---	---	---	---	---	---	---	---	---
423	395	396	TRP	TRP	LYS	LYS	LYS	---	---	---	---	---	---	---	---	---	---
424	396	397	ALA	ALA	ILE	ILE	ILE	---	---	---	---	---	---	---	---	---	---
425	397	398	SER	SER	MET	MET	MET	---	---	---	---	---	---	---	---	---	---
426	398	399	ARG	ARG	GLU	GLU	GLU	---	---	---	---	---	---	---	---	---	---
427	399	400	GLN	GLN	SER	SER	SER	---	---	---	---	---	---	---	---	---	---
428	400	401	GLU	GLU	HIS	HIS	HIS	---	---	---	---	---	---	---	---	---	---
429	---	---	PRO	PRO	PRO	PRO	PRO	---	---	---	---	---	---	---	---	---	---
430	401	402	SER	SER	---	---	---	---	---	---	---	---	---	---	---	---	---
431	---	---	GLN	GLN	ASN	ASN	ASN	---	---	---	---	---	---	---	---	---	---
432	---	---	GLY	GLY	---	---	---	---	---	---	---	---	---	---	---	---	---
433	402	403	THR	THR	---	---	---	---	---	---	---	---	---	---	---	---	---
434	403	404	THR	THR	GLY	GLY	GLY	---	---	---	---	---	---	---	---	---	---
435	404	405	PHE	PHE	THR	THR	THR	---	---	---	---	---	---	---	---	---	---
436	405	406	PHE	PHE	PHE	PHE	PHE	---	---	---	---	---	---	---	---	---	---
437	406	407	ALA	ALA	SER	SER	SER	---	---	---	---	---	---	---	---	---	---
438	407	408	VAL	VAL	ALA	ALA	ALA	---	---	---	---	---	---	---	---	---	---
439	408	409	THR	THR	LYS	LYS	LYS	---	---	---	---	---	---	---	---	---	---
440	409	410	SER	SER	GLY	GLY	GLY	---	---	---	---	---	---	---	---	---	---
441	410	411	ILE	ILE	VAL	VAL	VAL	---	---	---	---	---	---	---	---	---	---
442	411	412	LEU	LEU	ALA	ALA	ALA	---	---	---	---	---	---	---	---	---	---
443	412	413	ARG	ARG	SER	SER	SER	---	---	---	---	---	---	---	---	---	---
444	413	414	VAL	VAL	VAL	VAL	VAL	---	---	---	---	---	---	---	---	---	---
445	414	415	ALA	ALA	CYS	CYS	CYS	---	---	---	---	---	---	---	---	---	---
446	415	416	GLU	GLU	VAL	VAL	VAL	---	---	---	---	---	---	---	---	---	---
447	416	417	ASP	ASP	GLU	GLU	GLU	---	---	---	---	---	---	---	---	---	---
448	417	418	ASP	ASP	ASP	ASP	ASP	---	---	---	---	---	---	---	---	---	---
449	418	419	TRP	TRP	TRP	TRP	TRP	---	---	---	---	---	---	---	---	---	---
450	419	420	LYS	LYS	ASN	ASN	ASN	---	---	---	---	---	---	---	---	---	---
451	420	421	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
452	421	422	GLY	GLY	ARG	ARG	ARG	---	---	---	---	---	---	---	---	---	---
453	422	423	ASP	ASP	LYS	LYS	LYS	---	---	---	---	---	---	---	---	---	---
454	423	424	THR	THR	GLU	GLU	GLU	---	---	---	---	---	---	---	---	---	---
455	424	425	PHE	PHE	PHE	PHE	PHE	---	---	---	---	---	---	---	---	---	---
456	425	426	SER	SER	VAL	VAL	VAL	---	---	---	---	---	---	---	---	---	---
457	426	427	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
458	427	428	CYS	CYS	CYS	CYS	CYS	---	---	---	---	---	---	---	---	---	---
459	428	429	MET	MET	THR	THR	THR	---	---	---	---	---	---	---	---	---	---
460	429	430	VAL	VAL	VAL	VAL	VAL	---	---	---	---	---	---	---	---	---	---
461	430	431	GLY	GLY	THR	THR	THR	---	---	---	---	---	---	---	---	---	---
462	431	432	HIS	HIS	HIS	HIS	HIS	---	---	---	---	---	---	---	---	---	---
463	432	433	GLU	GLU	ARG	ARG	ARG	---	---	---	---	---	---	---	---	---	---
464	433	434	ALA	ALA	ASP	ASP	ASP	---	---	---	---	---	---	---	---	---	---
465	434	435	LEU	LEU	LEU	LEU	LEU	---	---	---	---						